

Amendments to the Specification:

Please add the following paragraphs at page 6, after line 25:

Figure 12 is a flow chart illustrating the steps for integrally forming a heat-generating device with a bottom surface of an interface layer in accordance with one embodiment of the present invention.

Figure 13 is a flow chart illustrating the steps for forming the interface layer of Figure 12.

Please replace the paragraph at page 7, lines 22-25, with the following amended paragraph:

Other structures for manifold layers are taught, for example, in co-pending U.S. patent application Serial Number ~~XX/YYY,YYY~~ 10/439,635, ~~Attorney Docket No. COOL-00301~~, filed on May 16, 2003, and titled "Method and Apparatus for Flexible Fluid Delivery for Cooling Desired Hot Spots in a Heat Producing Device," which is hereby incorporated by reference.

Please replace the paragraph at page 29, lines 2-10, with the following amended paragraph:

An apparatus and method of circulating a heat-absorbing material within a heat exchanger ~~is disclosed~~. The apparatus comprises a manifold layer coupled to an interface layer. The manifold layer comprises an inlet manifold and an outlet manifold. The interface layer comprises a plurality of channels that extend from the inlet manifold, toward a heat-exchanging plane, and turn away from the heat-exchanging plane, terminating at the outlet manifold. The plurality of channels are stacked in a plane non-parallel to the heat-exchanging plane. Each of the channels is adjacent to another, thus allowing heat radiated from a heat-generating device to be conducted to a cooling material circulating within the channels, away from the heat-generating device. Preferably, each of the channels has a U-shape or an elongated U-shape.

Please add the following paragraphs after the paragraph at page 18, lines 9-18:

Figure 12 illustrates steps 1050 for integrally forming a heat-generating device with a bottom surface of an interface layer in accordance with one embodiment of the present invention. In the step 1051, a manifold layer with first and second pluralities of apertures are formed. In the step 1055, an interface layer having a plurality of routes is formed, and in the step 1060, a heat-generating device is integrally formed to the bottom surface of the interface layer. In the step 1065, the interface layer is coupled to the manifold layer.

Figure 13 illustrates the step 1055 of Figure 12 in more detail, in accordance with one embodiment of the present invention. As illustrated in Figure 12, the step 1055 comprises the step 1056 of patterning a semiconductor device and the step 1057 of etching the patterned semiconductor device to form the interface layer.